ADEOS-II Science and utilization Project Update (EORC)

3rd,August,2004

Fort Collins in Colorado

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Main activities of this year

- Version up of products (Both AMSR/AMSR-E, L1 and higher products)
- Calibration/Validation field experiments by PI
- Develop the receiving system of Aqua,Terra direct broad cast data
- Develop the application of products
- 3rd Research announcement
- Workshop

Version up of products

[Present status]

L1 collection algorithm (non-linearity of receivers) has fixed on the end of July.

-> Details will be presented by Mr. Keiji Imaoka.

[Schedules]

1. New L1 products will be processed in EOC and handed to RSS people to estimate by the end of this August.
2. After estimation by RSS, distributed to PI by the end of September.
3. Tuning of the algorithm for higher product by PI by the end of November.
4. PI sends to their programs and check them in EORC by the middle of December.
5. Validate the new products in EORC and install them into EOC by the end of next January.

-> Detail schedule will be presented by Mr. Makoto Imanaka

Calibration/Validation field experiment

1. Soil Moisture field experiment in Mongolia conducted by Prof.Kaihotsu

Activities

(1) Collecting data acquired by ASSH, AWS
(2) Maintenance of ASSH,AWS

Schedule

(1) 31st ,May to 5th June
(2) The end of September
(3) Next March

2. Snow depth field experiment in Siberia, Soil moisture in Tibet, Thailand conducted by Prof.Koike

(1) Field campaign in Tibet will be implemented from 3rd August to 8th September
(2)The soil moisture related data are acquired in Thailand continuously.
(3) The snow depth related data will be collected on October.

Calibration/Validation field experiment (cont)

3.Sea ice filed experiment in Antarctic sea conducted by Prof.Nishio
-> Details will be introduced in his presentation.

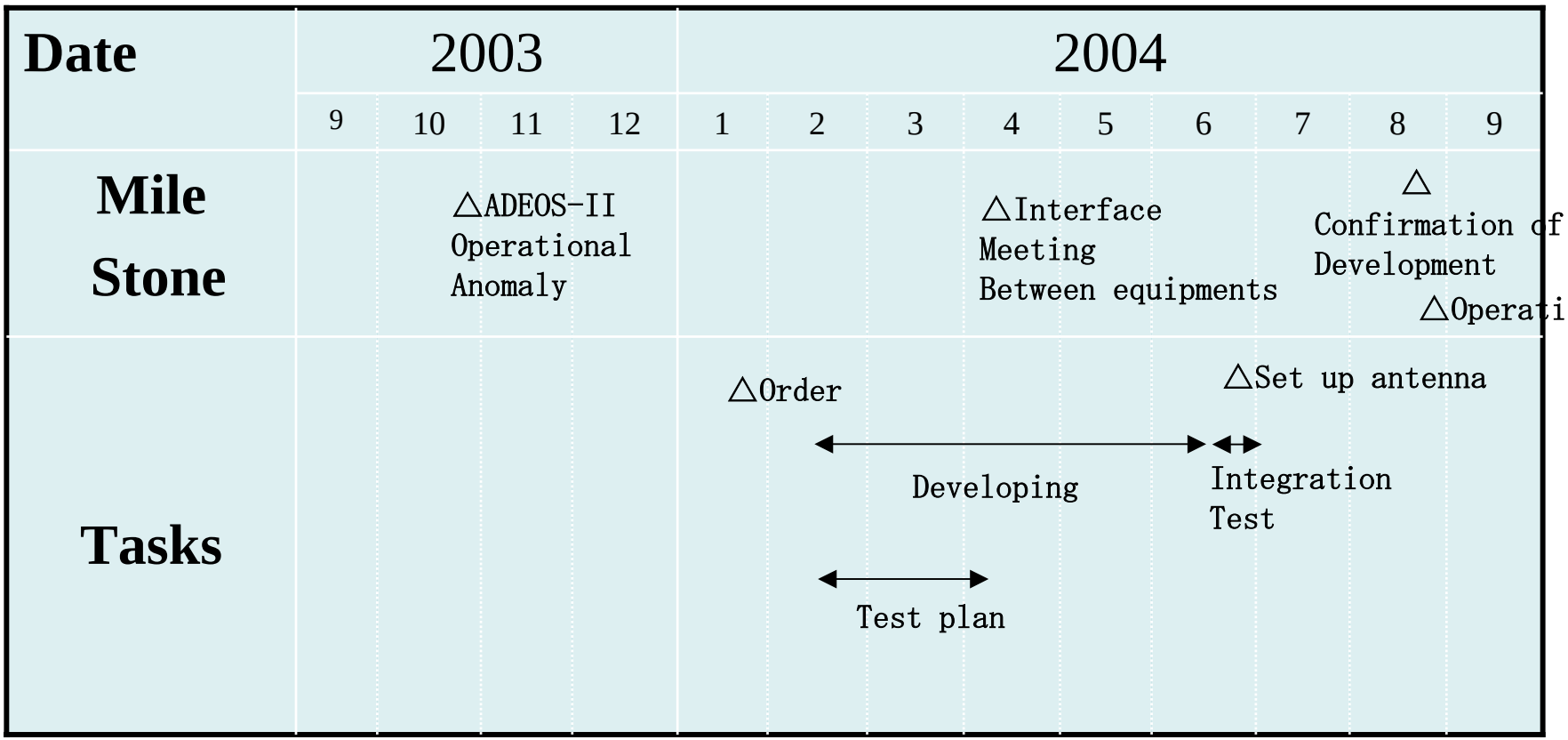
4.Precipitation, and other data in Minamidaito-island and Hegurajima-island have been collected but this activities will be terminated on the end of September. Because these island will be unmanned.

Receiving system for Aqua,Terra Direct Broad Cast Data -1-

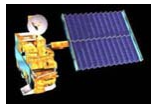
[Purpose]

This receiving system is developed for the substitution of ADEOS-II and this system will provide MODIS for GLI and AMSR-E data in real-time basis.

[Main Schedule]



Receiving system for Aqua,Terra Direct Broad Cast Data -2-



Terra/Aqua

EOC

EORC

(1)EOS receiving system

Receive

Orbit data

(3) EOC Network

(4) EORC Network

Data storage system

(6)EORC data server for out side users

MODIS L1B

Record、Processing of L
(For MODIS)

AMSR-E L0

AMSR-E L1B

DDS

NCS

web, ftp

JCG

JAFIC

(5) GLI higher processing system

(2) AMSR-E processing system

AMSR-E L1B

JMA

Receiving system for Aqua,Terra Direct Broad Cast Data -3-

The second operation building

EOS receiving system（Antenna）

EOS receiving system（Receive and process）

The first operation building

EOC

AMSR-E processing system

DDS

EORC

GLI higher processing system

EORC Open system

User

EOS receving system （Remote monitor）

Develop the applications of products

1.Open the home page for validation data
- We plan to open the ground truth data acquired through the calibration/validation activities conducted by JAXA.

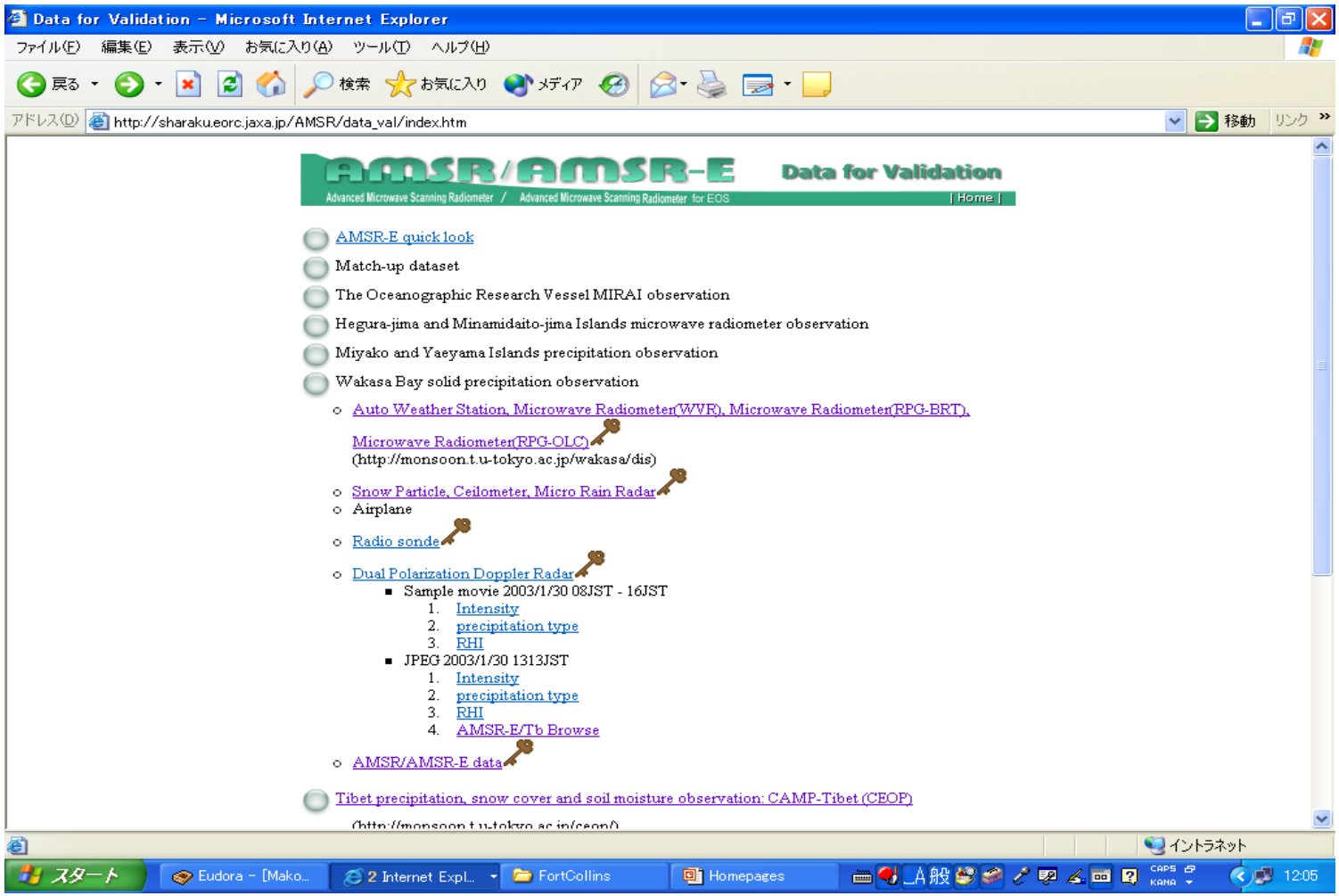
[Present Status]
-Start to open Wakasa field campaign 2003 data.
-> Yesterday annouced to Wakasa Bay research group

-Asking PI to data policy and if PI agree to open, we will open them through the home page in order.

The kinds of data to plan to open

○The Oceanographic Research Vessel MIRAI observation ○Hegura-jima and Minamidaito-jima Islands microwave radiometer observation ○ Miyako and Yaeyama Islands precipitation observation ○Wakasa Bay solid precipitation observation ○Tibet precipitation, snow cover and soil moisture observation: camp-tibet (ceop)	○Siberia solid precipitation and snow cover observation: CAMP-Siberia (CEOP) ○Mongolian soil moisture observation: CAMP-Mongolia (AMPEX) ○Thai soil moisture observation: CAMP-Thailand (CEOP) ○The Sea of Okhotsk observation ○Antarctic observation

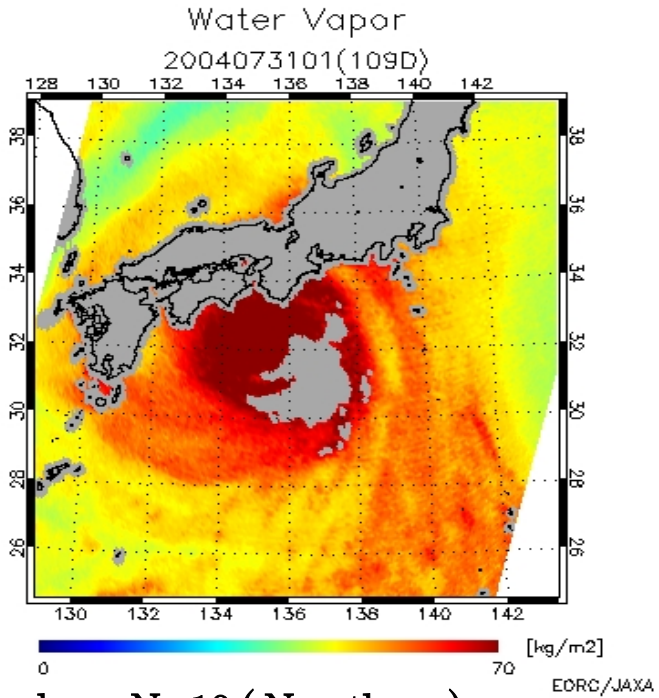
Develop the applications of products (cont)



http://sharaku.eorc.jaxa.jp/AMSR/data_val/index.htm

Develop the applications of products (cont)

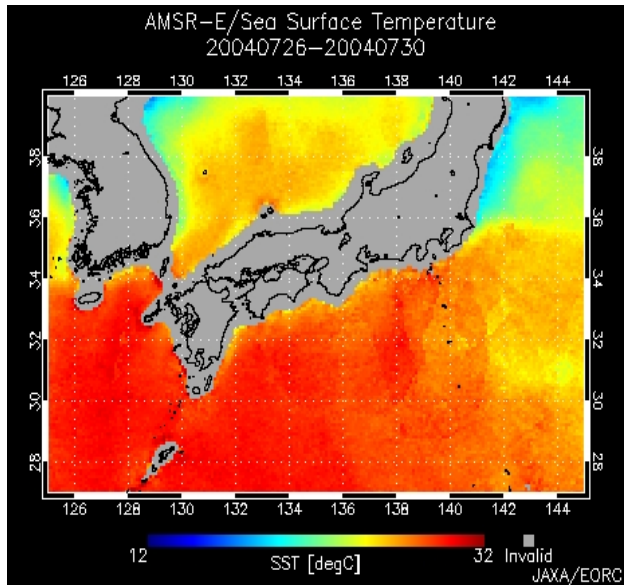
2. Monitor the Japanese weather condition



Typhoon No.10 (Namtheun)

Typhoon home page : using Water Vapor product, Precipitation product and L1B

http://sharaku.eorc.jaxa.jp/cgi-bin/adeos2/typhoon/typhoon.cgi?mode=view



Kuroshio monitor home page : using SST product

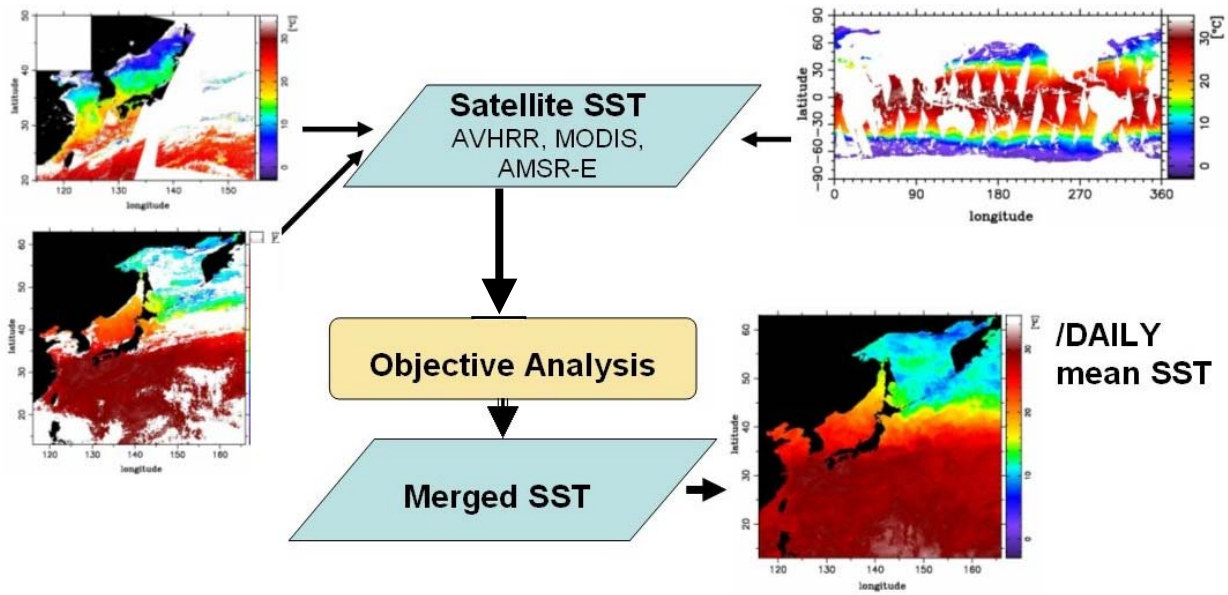
http://sharaku.eorc.jaxa.jp/cgi-bin/amsr/kuroshio/kuroshio.cgi?lang=j

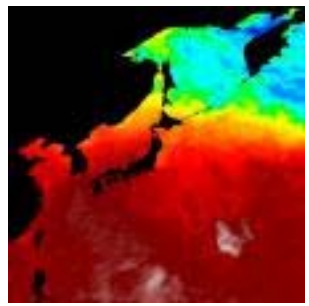
Develop the applications of products (cont)

3. High resolution, cloud free Seasurface Temperature homepage

Tohoku University (Dr.Kawamura's team, Joint Use PI) and JAXA starts open the high-resolution, cloud free seasurface temperature homepage, using AVHHR,MODIS together with AMSR-E.
This home page is updated every day. (one days behind real-time data.)

Address; http://www.ocean.caos.tohoku.ac.jp/~merge/sstbinary/actvalbm.cgi





- Merge AVHRR, MODIS, AMSR-E, IMAGER(GOES)
- Covers 13-63N,116-166E
- Every 0.05 degree
- Daily Product
- Behind 1 day from real-time

The flow to produce high resolution Cloud free SST

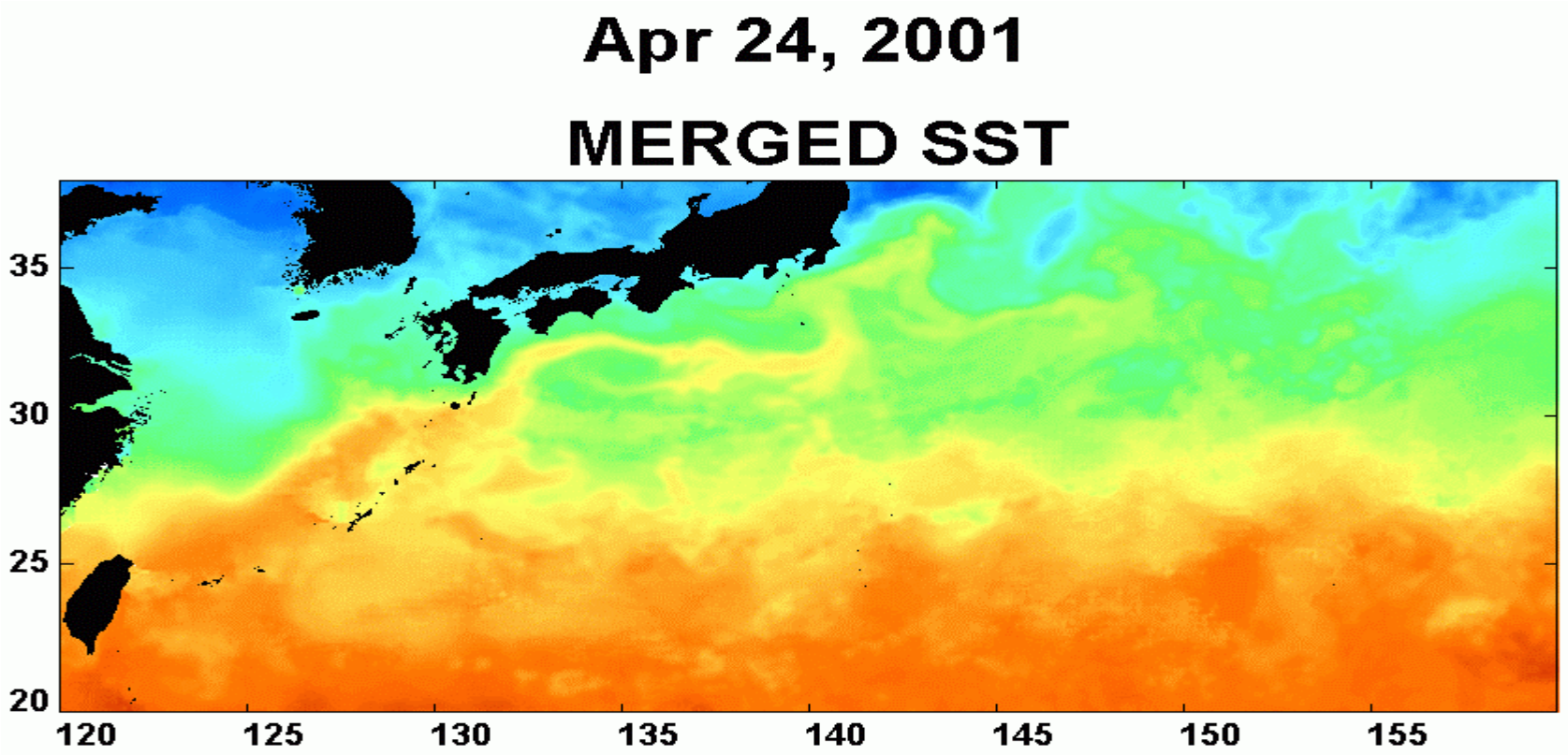
Develop the applications of products (cont)

Characteristics

- High resolution -> Understand the detail ocean structure

-Cloud free -> Understand the cover area constantly

-Daily -> Understand the time-series of the daily ocean structure



3rd Research Announcement

-The present contract, JRA will be terminated within this Japanese fiscal year. Accompanied with this termination, EORC will collect new non-funded PI.

1.JAXA will not be able to distribute data acquired by JAXA's sensors with free of charge. Therefore, we must establish the contract with PI and provide it with free of charge.

2.But JAXA hopes to use them as widely as possible.

○The field of collection
(1) Research for long term environmental change using AMSR-E/AMSR.
(2) New utilization for disaster monitoring, resource management and so on.
(3) And the others

○Research period of RA ; Three years since next Japanese fiscal year.

3rd Research Announcement (cont)

The schedule outline

1. Announcement ; The beginning of October
2. Closing of application ; The end of December
3. Estimation ; From January to February
4. Announcement of the conclusion ; Next March

Workshop

Date : 1st week on December

Place : Nara , Kamkura, Yokohama, or Yokosuka

-> Within August we will decide and announce.